



JP9298112



INVESTOR IN PEOPLE

PN - JP9298112 A 19971118
 PD - 1997-11-18
 PR - JP19960110697 19960501
 OPD - 1996-05-01
 TI - (A)

ACTUATOR CONTROLLED BY TEMPERATURE CHANGE

AB - (A)

PROBLEM TO BE SOLVED: To realize an actuator of a new structure, to utilize the actuator and to control a gas fluid rate by a temperature change by a method wherein either of first and second magnetic members is formed of a magnetic material having a magnetic permeability which is changed by a temperature. SOLUTION: The tapered point of a moving piece 3 is inserted from an opening formed in the lower surface of a support member 1 into the interior of a tapered part 2b, a magnetic material 4 is secured to the lower end of the piece 3 in roughly parallel to a permanent magnet 5 and a first magnetic member 6A is arranged between the end part on one side of the end parts corresponding to each other of the material 4 and the S pole side end part of the magnet 5. Moreover, a second magnetic member 6B is similarly arranged also under the N pole side end part of the magnet 5. Either of the members 6A and 6B is formed of a magnetic material having a magnetic permeability which is changed by a temperature. Thereby, the amount of insertion of the piece 3 into the interior of the tapered part 2b can be changed and a gas flow rate can be controlled.

IN - (A)
 YAMAMOTO MASAYUKI; UCHIUMI KAZUHARU

PA - (A)
 SUMITOMO HEAVY INDUSTRIES

IC - (A)
 H01F7/02; F16K31/66; G05D7/03; H02N10/00
 - (B2)
 H01F7/16; F16K31/66; G05D7/03; H02N10/00

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TI - Temperature controlling actuator for flow control apparatus - has mutually opposite magnetic units, one side of which controls temperature change

PR - JP19960110697 19960501

PN - JP9298112 A 19971118 DW199805 H01F7/02 008pp

PA - (SUMH) SUMITOMO HEAVY IND LTD

IC - F16K31/66 ;G05D7/03 ;H01F7/02 ;H02N10/00

AB - J09298112 The actuator includes a movable piece (3) which is movably attached to a support unit (1). A first magnetic unit (6A, 6B) is attached to the support unit and a second magnetic unit is attached to the movable unit. A gap (9A) is formed between the first and second magnetic unit. The width of the gap is varied when the movable unit is moved. A magnetic circuit (8) generates a magnetic force between the first and second magnetic units along the direction of gap width variation. One side of the mutually opposite magnetic units forms an actuator which changes the radio magnetic rate when temperature in the gap is changed.

- ADVANTAGE - Simplifies structure.

- (Dwg.1/4)

OPD - 1996-05-01

AN - 1998-048888 [05]

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- SOLUTION: The tapered point of a moving piece 3 is inserted from an opening formed in the lower surface of a support member 1 into the interior of a tapered part 2b, a magnetic material 4 is secured to the lower end of the piece 3 in roughly parallel to a permanent magnet 5 and a first magnetic member 6A is arranged between the end part on one side of the end parts corresponding to each other of the material 4 and the S pole side end part of the magnet 5. Moreover, a second magnetic member 6B is similarly arranged also under the N pole side end part of the magnet 5. Either of the members 6A and 6B is formed of a magnetic material having a magnetic permeability which is changed by a temperature. Thereby, the amount of insertion of the piece 3 into the interior of the tapered part 2b can be changed and a gas flow rate can be controlled.
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